

Notice of Allowability

Application No.

10/803,785

Applicant(s)

CHEN, CHUNG-HUI

Examiner

ANH PHUNG

Art Unit

2824

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the Election received on Dec. 19, 2005.
2. ☒ The allowed claim(s) is/are 1-9 and 16-22.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).


* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date 4/8/04
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☒ Other Search History.


ANH PHUNG
PRIMARY EXAMINER

DETAILED ACTION

Examiner's amendment

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CAR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Cancel the non-elected method claims **10-15**, due to elected without traverse.

The examiner's amendment has been made in order to place the application in a condition for allowance.

2. This Office Action is responsive to the Election received on Dec. 19, 2005, the non-elected claims **10-15** are cancelled, and the elected-claims **1-9** and **16-22** are remained in the application.

Information Disclosure Statement

3. This office acknowledges receipt of the following items from the Applicant:
Information Disclosure Statement (IDS) filed on April 8, 2004.
Information disclosed and listed on PTO 1449 was considered.

Examiner's Statement of Reasons for Allowance

4. Claims **1-9** and **16-22** are allowed.

Taheri et al. (US 2005/0207223), Luo et al. (US 6,903,436), McClure (US 6,781,916) and Casper et al. (US 5,812,477) disclose a programmable metal-oxide-semiconductor memory circuit having a latch circuit and programming fuse similar to that of the present application, but fail to teach:

“wherein the first and second control voltage levels are imposed to program either the first or second N-type transistor by causing a voltage difference between the drain region and the source region (V_{ds}) and voltage difference between the gate region and the source region (V_{gs}) to be bigger than an operating voltage to induce a hot carrier effect, and wherein the first and second outputs of the latch produce voltage results representing whether the first or second N-type transistor has been programmed when the connection module is enabled” as claimed in the independent claim **1**; also, dependent claims **2-9** are allowed; or

“wherein the first and second control voltage levels are imposed to cause a voltage difference between the drain region and the source region (V_{ds}) and voltage difference between the gate region and the source region (V_{gs}) of the device to be bigger than a predetermined threshold voltage to cause a hot carrier effect for increasing the resistance thereof so that the device functions as a one-time programmable fuse” as claimed in the independent claim **16**; also, dependent claims **17-18** are allowed; or

“wherein the first and second control voltage levels are imposed to program either the first or second N-type thin gate oxide transistor by causing a voltage difference between the drain region and the source region (V_{ds}) and voltage difference between the gate region and the source region (V_{gs}) to be bigger than a predetermined threshold voltage to induce a hot carrier effect” as claimed in the independent claim **19**; also, dependent claims **20-22** are allowed.

Art Unit: 2824

Any comments considered necessary by applicants must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comment on Statement of Reasons for Allowance".

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **ANH PHUNG** whose telephone number is **(571) 272-1883**. The examiner can normally be reached on Monday-Friday from 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **RICHARD ELMS**, can be reached on **(571) 272-1869**. The fax phone number for the organization where this application or proceeding is assigned is **(703) 872-9306**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at **866-217-9197** (toll-free).

Art Unit: 2824

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ANH PHUNG
PRIMARY EXAMINER